



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,022	04/06/2001	Joe Depaolantonio	CSCO-3809	6438

7590

04/25/2003

WAGNER, MURABITO & HAO LLP
Third Floor
Two North Market Street
San Jose, CA 95113

EXAMINER

TAYLOR, BARRY W

ART UNIT

PAPER NUMBER

2643

DATE MAILED: 04/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/828,022

Applicant(s)

DEPAOLANTONIO, JOE

Examiner

Barry W Taylor

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-17, 26-29 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Cowan et al (6,115,743 hereinafter Cowan).

Regarding claims 1, 12, 17, 26 and 31 Cowan teaches an automated network communication device audit tool method (Title, abstract) comprising:

gathering communication device information (abstract, col. 2 lines 11-67, col. 3 line 64 – col. 5 line 56, col. 6 lines 30-67, col. 7 lines 1-10, col. 9 line 48 – col. 10 line 22, col. 10 line 65 – col. 11 line 58, col. 12 line 9 – col. 13 line 54, col. 14 line 29 – col. 15 line 9, col. 16 lines 26-47);

parsing the gathered communication device information (col. 1 lines 30-35, col. 2 lines 44-58, col. 3 line 64 – col. 4 line 11, col. 5 lines 49-60, col. 6 lines 30-35, col. 7 lines 1-10, col. 9 lines 23-67, columns 14-16);

determining if additional communication device information is required (col. 2 line 59 – col. 3 line 3, col. 6 lines 36-67, col. 11 lines 36-67, col. 13 line 65 – col. 14 line 28);

analyzing the characteristic and operations of the network communication device (abstract, col. 2 lines 11-67, col. 3 line 64 – col. 5 line 56, col. 6 lines 30-67, col. 7 lines 1-10, col. 9 line 48 – col. 10 line 22, col. 10 line 65 – col. 11 line 58, col. 12 line 9 – col. 13 line 54, col. 14 line 29 – col. 15 line 9, col. 16 lines 26-47); and

reporting the communication device information (abstract, col. 2 lines 11-67, col. 3 line 64 – col. 5 line 56, col. 6 lines 30-67, col. 7 lines 1-10, col. 9 line 48 – col. 10 line 22, col. 10 line 65 – col. 11 line 58, col. 12 line 9 – col. 13 line 54, col. 14 line 29 – col. 15 line 9, col. 16 lines 26-47) in a convenient format including identification of problems (figure 11).

Regarding claim 2. Cowan teaches retrieving information regarding the device and status of device (col. 2 lines 22-58, col. 5 lines 20-56).

Regarding claims 3 and 27. Cowan teaches automatically queries device (col. 12 line 64 – col. 13 line 7, col. 14 line 61 – col. 15 line 9, col. 15 line 55 – col. 16 line 47).

Regarding claims 4 and 28. Cowan teaches telecommunication networks including fiber transmission systems (col. 1 lines 10-22).

Regarding claims 5 and 29. Cowan teaches constructing the queries by issuing protocol commands formatted in the appropriate syntax for the communication device (col. 4 line 61 – col. 5 line 19).

Regarding claim 6. Cowan teaches analyzing the performance of the communication device (figure 11, col. 13 lines 8-12).

Art Unit: 2643

Regarding claim 7. Cowan teaches correlating the device with characteristic data (figures 11 and 16, col. 10 lines 12-22, col. 12 lines 33-46, col. 13 lines 18-32).

Regarding claims 8-11. Cowan teaches wherein the characteristic of device is a configuration, performance or functionality characteristic (abstract, col. 2 lines 11-67, col. 3 line 64 – col. 5 line 56, col. 6 lines 30-67, col. 7 lines 1-10, col. 9 line 48 – col. 10 line 22, col. 10 line 65 – col. 11 line 58, col. 12 line 9 – col. 13 line 54, col. 14 line 29 – col. 15 line 9, col. 16 lines 26-47, figures 11 and 16).

Regarding claim 13. Cowan teaches wherein device audit information includes device configuration information (figure 16), performance level information (figure 16), and identification parameters that do not meet threshold levels (see fault analysis component 416 figure 4, col. 10 lines 12-22, col. 10 line 65 – col. 11 line 67, columns 12-16).

Regarding claim 14. Cowan teaches wherein the network communication device audit information includes a network communication device audit report that has the same user friendly look and feel for a variety of devices across different architectures and is organized in a manner that facilitates network management and maintenance (figure 11, col. 4 line 61 – col. 5 line 19).

Regarding claim 15. Cowan teaches wherein the network communication device audit report presents information associated with different areas of network management impact (col. 7 lines 1-10, col. 10 lines 12-22, col. 10 line 65 – col. 11 line 65, col. 12 lines 33-67, columns 13-16).

Regarding claim 16. Cowan teaches wherein areas of network management impact areas includes fault management, performance management, capacity management, and configuration management (abstract, col. 2 lines 11-67, col. 3 line 64 – col. 5 line 56, col. 6 lines 30-67, col. 7 lines 1-10, col. 9 line 48 – col. 10 line 22, col. 10 line 65 – col. 11 line 58, col. 12 line 9 – col. 13 line 54, col. 14 line 29 – col. 15 line 9, col. 16 lines 26-47, figures 11 and 16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 18-25, 30 and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan et al (6,115,743 hereinafter Cowan) in view of Tonelli et al (6,229,540 hereinafter Tonelli).

Regarding claims 18-23 and 32-36. Cowan does not explicitly show using net rules.

Tonelli teaches a method for designing networks including auditing a network to discover a present network configuration, creating a network design sheet from the discovered network configuration, placing device icons representing intelligent device objects on the network design sheet, selecting a media type representing an

Art Unit: 2643

intelligent media object, and connection the media type to a first one of the devices icons and validating the connection to the fires one of the device icons (Title, abstract). Tonelli discloses each element has its own behavioral characteristics and likely comes from a different vender and systems made up of these elements experience change or encounter problems (i.e. congestion, circuit failure, or component degradation) and overall effects can range from a minor slowdown to complete collapse (see Background). Tonelli provides a software implemented method for auditing a network by using more than one soft probes to discover topology, host and interface information on devices in the network. The auditing includes gathering the data with soft probes that include a Simple Network Management Protocol (SNMP) probe and a Novell IPX probe. The core data set discovered by an audit includes addresses, system identifications, name and description, of network components (columns 1-24). Tonelli discloses that through rules engine, the design software validates a network design at several levels. Tonelli discloses that validation prevents the user from making invalid connections and, where possible, assists the user in completing intermediate configurations that make otherwise invalid connections valid (column 4). Tonelli discloses the network design software identifies the mismatch and assists the user in configuring a solution (col. 4 lines 60-67). Tonelli discloses the network designs software validates to conformance to standards (bottom column 4) and cable segment length in a local area network and total distance of an FDDI ring are checked against maximums set by the standard, and for Ethernet network, the network design software checks repeater density, cable length, and looks for loops in the topology. Tonelli

Art Unit: 2643

discloses that device icons correspond to intelligent objects built from templates wherein templates define rules for object instantiation such that each instantiation accurately reflects the characteristics of the corresponding network device (columns 5-6). In accordance with the manufacturer's specifications, the device objects model the functionality of the corresponding network devices, including physical properties, port and slot types, available adapter card options and asset management. For example, Cisco AGS+ multi-protocol router object behaves like the real AGS+ (column 7), including the CBUS/Multibus dual bus scheme and the multiple protocols found on its adaptor cards. As another example, the Cabletron MMAC-5 hub object includes the correct number of FNBGMT and FNBMM bus slots and two embedded console ports and device objects may also include technical notes and photographs of the corresponding device (columns 7-22).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the graphical user interface as taught by Cowan to include device icons and rules engine software as taught by Tonelli so that audit tool may interact with different cards manufactured by different vendors such as Cisco or Cabletron as taught by Tonelli.

Regarding claim 24. Cowan teaches the audit tool identifies potential causes of problems (abstract, col. 2 lines 11-67, col. 3 line 64 – col. 5 line 56, col. 6 lines 30-67, col. 7 lines 1-10, col. 9 line 48 – col. 10 line 22, col. 10 line 65 – col. 11 line 58, col. 12 line 9 – col. 13 line 54, col. 14 line 29 – col. 15 line 9, col. 16 lines 26-47, figure 11).

Regarding claims 25, 30 and 37. Cowan does not explicitly show providing a suggested corrective course of action for a problem.

Tonelli teaches a method for designing networks including auditing a network to discover a present network configuration, creating a network design sheet from the discovered network configuration, placing device icons representing intelligent device objects on the network design sheet, selecting a media type representing an intelligent media object, and connection the media type to a first one of the devices icons and validating the connection to the first one of the device icons (Title, abstract). Tonelli discloses each element has its own behavioral characteristics and likely comes from a different vendor and systems made up of these elements experience change or encounter problems (i.e. congestion, circuit failure, or component degradation) and overall effects can range from a minor slowdown to complete collapse (see Background). Tonelli provides a software implemented method for auditing a network by using more than one soft probes to discover topology, host and interface information on devices in the network. The auditing includes gathering the data with soft probes that include a Simple Network Management Protocol (SNMP) probe and a Novell IPX probe. The core data set discovered by an audit includes addresses, system identifications, name and description, of network components (columns 1-24). Tonelli discloses that through rules engine, the design software validates a network design at several levels. Tonelli discloses that validation prevents the user from making invalid connections and, where possible, assists the user in completing intermediate configurations that make otherwise invalid connections valid (column 4). Tonelli

Art Unit: 2643

discloses the network design software identifies the mismatch and assists the user in configuring a solution (col. 4 lines 60-67). Tonelli discloses the network designs software validates to conformance to standards (bottom column 4) and cable segment length in a local area network and total distance of an FDDI ring are checked against maximums set by the standard, and for Ethernet network, the network design software checks repeater density, cable length, and looks for loops in the topology. Tonelli discloses that device icons correspond to intelligent objects built from templates wherein templates define rules for object instantiation such that each instantiation accurately reflects the characteristics of the corresponding network device (columns 5-6). In accordance with the manufacturer's specifications, the device objects model the functionality of the corresponding network devices, including physical properties, port and slot types, available adapter card options and asset management. For example, Cisco AGS+ multi-protocol router object behaves like the real AGS+ (column 7), including the CBUS/Multibus dual bus scheme and the multiple protocols found on its adaptor cards. As another example, the Cabletron MMAC-5 hub object includes the correct number of FNBMT and FNBMM bus slots and two embedded console ports and device objects may also include technical notes and photographs of the corresponding device (columns 7-22).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time of the invention to modify the graphical user interface as taught by Cowan to include device icons and rules engine software as taught by Tonelli so that audit tool

Art Unit: 2643

may identify mismatches thus preventing the user from making invalid connections as taught by Tonelli.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry W. Taylor whose telephone number is (703) 305-4811. The examiner can normally be reached on Monday-Friday from 6:30am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703) 305-4708. The fax phone number for this Group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 customer service Office whose telephone number is (703) 306-0377.


CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600